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**SINGLE CHIP MODULES, REPAIRABLE MULTICHP MODULES,
AND METHODS OF FABRICATION THEREOF**

Abstract of the Disclosure

Multichip and single chip modules are presented
5 as well as a chips first fabrication of such modules. The multichip module comprises a plurality of chips
affixed in a planar array by a structural material
which surrounds the sides of the chips such that the
upper surfaces of the chips and an upper surface of
10 the structural material are co-planar and the lower
surface of at least one chip and a lower surface of
the structural material are co-planar. A photo-
patternable dielectric is disposed directly on the
upper surfaces of the chips. The photo-patternable
15 dielectric includes vias to at least some contact
pads at the upper surfaces of the chips and the
module further comprises an intrachip metallization
layer on the photo-patternable dielectric layer.
Subsequent processing provides a multi-layer chip
20 interconnect structure over the intrachip
metallization layer and photo-patternable dielectric.
Testing and repair of the module can be accomplished
prior to or subsequent to fabrication of the multi-
layer chip interconnect. Formation of multiple
25 single chip modules is accomplished by singulating
the multichip module into individual packages.